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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,742	03/05/2002	Hidekiyo Takaoka	M1071-1711	7012
7590	07/22/2005		EXAMINER	
EDWARD A. MEILMAN, ESQ. DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP 1177 AVENUE OF THE AMERICAS-41ST FLOOR NEW YORK, NY 10036-2714			IP, SIKYIN	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/087,742

Filing Date: March 05, 2002

Appellant(s): TAKAOKA ET AL.

Edward A. Meilman  
For Appellant

**EXAMINER'S ANSWER**

MAILED  
JUL 22 2005  
GROUP 1700

This is in response to the appeal brief filed July 12, 2005 appealing from the Office action mailed January 30, 2004.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

This appeal involves claims 1-6.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect because there is no amendment after final has been filed. Paper filed on April 29, 2004 contains merely arguments. Said paper has been entered.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) ClaimsAppealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) References of Record**

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

6,080,497	CAREY	06-2000
2000-190090	SENJU METAL IND CO LTD	07-2000

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:  
Claim Rejections - 35 USC § 103

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Appellant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c ) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6 are rejected under 35 U.S.C. § 103 as being unpatentable over JP 2000190090 (abstract) or USP 6080497 to Carey et al (abstract and col. 29, line 55 to col. 30, line 5).

The reference(s) disclose(s) the features including the claimed Sn based solder compositions and its application. When prior art compounds essentially "bracketing" the claimed compounds in structural similarity are all known, one of ordinary skill in the art would clearly be motivated to make those claimed compounds in searching for new

products. Therefore, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the subject matter disclosed by the reference. Overlapping ranges have been held to be a *prima facie* case of obviousness. See *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

**(10) Response to Argument**

Appellant's arguments filed July 12, 2005 have been fully considered but they are not persuasive.

Appellants argue that the solder of JP '090 must include bismuth (Bi) and indium (In). But, first the instant specification does not exclude Bi (see pages 8-9 of the instant specification). Therefore, the instant transitional expression "consisting essentially of" does not exclude Bi. Second, JP '090 does not require both Bi and In. Bi could be added independently. (see JP '090 abstract and [0013]).

Appellants' argument as set forth in last paragraph of page 6, first full paragraph of instant brief is noted. But, claims cannot be interpreted in vacuum. All claims are interpreted in view of teaching in the specification. Furthermore, it is well settled that the recitation of "consisting essentially of" limits the scope of a claim to the specified ingredients and those that do not materially affect the basic and novel characteristics of a composition. *Ex parte Davis, et al.*, 80 USPQ 448, 450 (PTO Bd. App. 1948), *In re Janakirama-Rao*, 317 F. 2d 951, 137 USPQ 893, 894 (CCPA 1963), *In re Garnero*, 412 F 2d 276, 162 USPQ 221, 223 (CCPA 1969), and *In re Herz, et al.*, 190 USPQ 461, 463

(CCPA 1976). When applicant contends that modifying components in the reference composition are excluded by the recitation of "consisting essentially of" applicant has the burden of showing the basic and novel characteristic of his/her composition - i.e. a showing that the introduction of these components would materially change the characteristics of applicant's composition. *In re De Lajarte*, 337 F 2d 870, 143 USPQ 256 (CCPA 1964) and *Ex parte Davis, et al.*, 80 USPQ 448, 450 (PTO Bd. App. 1948). As is evinced by the instant specification pages 8-9, that Bi would materially change the characteristics of applicant's composition.

Appellants' argument set forth in item 2 with respect to JP '090 is noted. But, appellants' attention is directed to [0002] that prior art solder is intended for "soldering of electronic equipment" which is known to contain Cu/Cu alloy printed circuit on generic circuit board.

Appellants' argument in item 3 with respect to Carey is noted. First, appellants fail to show the claimed composition or any alloying element is critical or possesses unexpected result. Second, appellants fail to show any element disclosed by Carey would materially change the characteristics of applicant's composition. Therefore, the instant transitional expression "consisting essentially of" does not exclude any essential element disclosed by Carey. *In re Baird* has been misplaced by appellants for reasons set forth above.

Appellants' argument as set forth in item 4 is noted. But, said limitation is met by references of record that at least one element in recited group is disclosed by references of record (please see related sections of cited references in rejection above).

Art Unit: 1742

**Examiner Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (571) 272-1241. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (571)-272-1244.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Appellants' argument as set forth in page 6 of the instant remarks with respect to Carey patent is noted. But, the Sn alloy composition disclosed by Carey in bridging col. 29-30 are clearly overlapped the claimed Sn composition. The listing of numerous solutions (here alloying elements) to a problem does not make any one solution less obvious. Ex parte Raychem Corp. 17 USPQ 2d 1417, 1424 (BPAI 1990) and Merck & Co. v. Biocraft Lab. Inc. 10 USPQ 2d 1843 (CAFC 1983). Moreover, one of ordinary skill artisan would have been led to select the claimed elements, motivated by a reasonable expectation of successfully achieving cited references' objectives. The disclosed genus would have rendered the species *prima facie* obvious. In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990); Merck & Co., Inc. v. Biocraft Laboratories, Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir 1989); and In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

SI  
July 19, 2005

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